Habitat Sammar y, and Excy margons indicators.					
Common name Scientific name	Global ¹ rank	State ² Rank	Number of Occurrences (2004/2008) ³	Key Analysis Indicators ⁴ (MIH = management indicator habitat)	Life History & Habitat Summary
Gray wolf Canis lupus	G4	SC		See analysis in MIS section.	Carnivore. Wide variety of forested habitats with low human density.
Heather vole Phenocomys ungava (aka P. intermedius)	G5	SC	3/6	MIH 8b: Jack pine forest, mature+	Wide variety of moist to dry forest, forest edge and openings, meadows, shrublands with <i>Vaccinium</i> and other heath family spp. and rocks.
Bald eagle Haliaeetus leucocephalus	G5	SC		See analysis in MIS section.	Carnivore. Nesting: super-canopy white pine and large aspen near large fish-bearing waters.
Northern goshawk Accipiter gentilis	G5	NON (nest)		See analysis in MIS section.	Carnivore. Nesting: Large trees. Large tracts of mature and older deciduous, coniferous, and mixed forests with closed canopy and open understory.
Peregrine falcon ⁵ Falco peregrinus anatum	G4T4	Т	Nests: 7/11	Non-forest nesting habitat.	Carnivore. Nesting: cliff/ledges. Hunting: forest openings, lakes, wetlands.

Habitat Summary, and Key Analysis Indicators.					
Common name Scientific name	Global ¹ rank	State ² Rank	Number of Occurrences (2004/2008) ³	Key Analysis Indicators ⁴ (MIH = management indicator habitat)	Life History & Habitat Summary
Sharp-tailed grouse Tympanuchus phasianellus	G4		Current Status described under species evaluation	Large patches of temporary non- forested uplands. Management-ignited fire opportunities.	Ominvore. Ground nester. Brushland complexes (>5,000 acres) with open areas, brush, grass/sedges, and small trees, as well as large open agricultural hay or pasture with associated brush habitat. Habitat niche is between grasslands and forests, usually created and maintained by fire
Yellow rail ⁵ Coturnicops noveboracensis	G4	SC	1/1	Non-forest wetlands.	Omnivore – mainly snails. Ground nester on small hummocks. Lowland sedge meadows with specific characteristics such as overhead mat of dead sedge, water 1-10" deep for feeding.
Great gray owl Strix nebulosa	G5	NON (nest)	Nests: 2/4	Nesting MIH 4b: Upland aspen-birch forest, mature+. MIH 5b: Upland conifer forest, mature+. Foraging MIH 5a: Upland conifer forest, young. MIH 9a: Lowland Black-Spruce- Tamarack young forest.	Carnivore. Tree nester. Mature forested patches of upland forested nesting habitat near open or sparsely forested foraging areas.

Common name	Global ¹	State ²	Number of Occurrences	Key Analysis Indicators ⁴ (MIH = management indicator	Life History & Habitat Summary
Scientific name	rank	Rank	$(2004/2008)^3$	habitat)	,
Boreal owl Aegiolus funereus	G5	NON (nest)	Nests: 12/14	Nesting MIH 4b: Upland Aspen-Birch mature+ MIH 5b: Upland conifer forest, mature+ . Foraging, cover MIH 9b: Lowland Black-Spruce Tamarack mature+ forest. MIH 9b in patches of 100 acres or greater.	Carnivore. Secondary cavity nester in large trees. Mature and older mixed conifer-deciduous forest (inc. aspen) next to mature lowland conifer forest feeding areas.
American three- toed woodpecker Picoides dorsalis(aka tridactylus)	G5		Current Status described under species evaluation	MIH 9b: Lowland black spruce- tamarack mature+ forest. Management-ignited fire opportunities. MIH 12: Upland interior forest, mature+.	Insectivore. Cavity nester. Large tracts of coniferous (primarily spruce/fir) forests with abundant dead and dying trees infested with wood boring beetle larvae.
Olive-sided flycatcher Contopus cooperi	G4		Current Status described under species evaluation	MIH 5b: Upland mature+ MIH 9b: lowland black spruce- tamarack mature+ Management-ignited fire opportunities.	Insectivore. Tree nester. Snags, low density conifer lowlands, riverine/riparian areas. Variety of 10-20% canopy boreal forests including uplands, lowlands, edges and beaver meadows with a preponderance of standing live or dead large trees; spruce or tamarack trees used for foraging.

Common name	Global ¹	State ²	Number of	Key Analysis Indicators ⁴	
Scientific name	rank	Rank	Occurrences (2004/2008) ³	(MIH = management indicator habitat)	Life History & Habitat Summary
Black-throated blue warbler Dendroica caerulescens	G5	NON (nests)	Current Status described under species evaluation	MIH 1b: Upland mature+ forest. MIH 1b in patches 2500 acres or greater.	Insectivore. Shrub nester. Large contiguous mature forests, especially sugar maple, and probably associated with small gaps and a well-developed deciduous shrub understory.
Bay-breasted warbler Dendroica castanea	G5		Current Status described under species evaluation	MIH 6b: Spruce/fir upland forest, mature+. MIH 9b: Lowland black spruce-tamarack forest, mature+. MIH 13: Upland and lowland mature+ forest patches (40-10,00 acres).	Insectivore. Mid-age to mature and older upland and lowland spruce/fir forests, especially those infested with spruce budworm and tent caterpillars.
Connecticut warbler Oporornis agilis	G4		Current Status described under species evaluation	MIH 9b: Lowland black spruce- tamarack mature+ forest MIH 8b: Jack pine forest, mature+.	Insectivore. Ground nester. Mature and older lowland conifer and jack pine forest with a thick ericaceous understory.
LeConte's sparrow Ammodramus leconteii	G4		Current Status described under species evaluation	Non-forest wetlands MIH 1a: Upland young forest. MIH 9a: Lowland black spruce- tamarack young forest. MIH 11: management-induced edge habitat in upland and lowland forest. Management-ignited fire opportunities. Road and trail construction.	Omnivore. Ground nester. Open lowland habitat, sedge-dominated wetlands and wet meadows.
Wood turtle Glyptemys insculpta (aka Clemmys insculpta)	G4	Т	Current Status described under species evaluation	Riparian disturbances. Road and trail construction.	Omivore. Nests in riparian habitats with open sandy areas for nesting. Forages in upland and lowland habitats with suitable shade, security cover wood, and insects for forage. Aquatic riverine habitat log jams, down logs, woody debris

Habitat Summary, and Key Miarysis indicators.					
Common name Scientific name	Global ¹ rank	State ² Rank	Number of Occurrences (2004/2008) ³	Key Analysis Indicators ⁴ (MIH = management indicator habitat)	Life History & Habitat Summary
Quebec emerald Somatochlora brevicincta	G4		0/1	Predominantly bogs, fens, and heaths	Insectivore; lentic larval form in water-suspended or water-saturated sphagnum. Adults have high vagility.
Mancinus alpine (aka disa, Taiga) Erebia mancinus (aka E. disa alpinus, E. disa mancinus)	G5	SC	4/4	MIH 9b: Lowland Black-Spruce- Tamarack mature+ forest	Semi-open to well-forested black spruce-tamarack sphagnum bogs.
Red-disked alpine Erebia discoidalis	G5		7/7	MIH 9b: Lowland Black-Spruce- Tamarack mature+ forest; Nonforest wetland	Open ericaceous, cottongrass, or sphagnum bogs, open meadows, semi-open black spruce-tamarack bogs ranging from young to mature and older.

Habitat Summary, and Key Analysis mulcators.					
Common name Scientific name	Global ¹ rank	State ² Rank	Number of Occurrences (2004/2008) ³	Key Analysis Indicators ⁴ (MIH = management indicator habitat)	Life History & Habitat Summary
Nabokov's blue (aka northern) Plebejus idas nabokovi (aka Lycaeides idas nabokovi)	G5TU	SC	8/12	MIH 6a: Jack pine forest - young	Associated with its exclusive larval host plant dwarf bilberry (Vaccinium cespitosum) in cool, well-drained sandy gravelly areas under fairly open coniferous forests, especially jack pine of the Vermilion Moraine (narrow band that extends through western Cook and central St. Louis Counties) Greatest concentrations of bilberry are in young, open or disturbed areas such as clearcuts or burned areas.
Jutta arctic Oeneis jutta ascerta	G5T4		3/3	MIH 9b: Lowland Black-Spruce- Tamarack mature+ forest Non-forest wetland.	Moderately forested black spruce bogs with sedges, bog forest openings and edges.
Freija's grizzled skipper Pyrgus centaureae freija	G5T4T5	SC	1/1	Non-forest.	Known only from the McNair special management area. Upland acid meadow.
Laurentian tiger beetle Cicindela denikei	G3G4	Т	13/26	Forest openings. Roads, trails, gravel pits.	Invertivore. Nest in soil/burrow. Sandy or rocky openings or semi-open areas in predominantly pine or mixed conifer forest, gravel pits.
Lake sturgeon Acipenser fluvescens	G3G4	SC	5/5	MIH 14: Aquatic	Invertivore; long-lived, slow growing, late maturing fish. Large Lakes and Rivers

Habitat Summary, and Key Analysis mulcators.					
Common name Scientific name	Global ¹ rank	State ² Rank	Number of Occurrences (2004/2008) ³	Key Analysis Indicators ⁴ (MIH = management indicator habitat)	Life History & Habitat Summary
Northern brook lamprey Ichthyomyzon fossor	G4	SC	11/11	MIH 14: Aquatic	Medium-sized, low-gradient streams with sections of higher gradient reaches suitable for spawning. Ammocoete's require organically enriched, sandy substrate until metamorphosis.
Creek heelsplitter Lasmigona compressa	G5	SC	6/22	MIH 14: Aquatic	Streams and headwaters of larger rivers. St. Louis river and tributaries. Lake of the Woods tributaries.
Black sandshell Ligumia recta	G5	SC	6/11	MIH 14: Aquatic	Medium to large rivers. St. Louis river and tributaries. Lake of the Woods tributaries.
Shortjaw cisco Coregonus zenithicus	G3	SC	4/4	MIH 14: Aquatic	Deepwater habitat; Lake Superior and Several large, deep, interior lakes on border of BWCAW and Quetico Prov. Park.

Common name Scientific name	Number of Occurrences (2004/2008) ³	Global ¹ rank	Key Analysis Indicators ⁴ (MIH = management indicator habitat)	Life History & Habitat Summary
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- 1. Global rankings as assigned by Natural Heritage Network (NatureServe 2009). G1=critically imperiled, G2=imperiled, G3=vulnerable, G4=apparently secure, G5=secure, T=ranks for subspecies, ?= inexact numeric rank, Q=questionable taxonomy, G#G#= range of ranks. See NatureServe website for complete definitions. "---" indicates the plant is not tracked on NatureServe website.
- 2. Minnesota state rankings (Minnesota Department of Natural Resources [DNR] 1996, updated 2007). E=endangered, T=threatened, SC=special concern., NON=tracked but not listed, "---"indicates the species in not tracked by MN DNR.
- 3. The number of occurrences includes only those presumed to be extant, and does not include those occurrences found before 1960. This is the number of occurrences within proclamation boundaries, except for peregrine falcon, which includes nest sites near the proclamation boundaries because of large home range.
- 4. Key Indicators. Management Indicator Habitats (MIHs): for specific ages and forest types associated with each MIH and age class, see Appendix A: **a.** = Young, seedling/sapling stage of forest vegetation, **b**. mature+ = mature and older stages of forest vegetation.
- 5. Species also has Fish and Wildlife status with as bird species of conservation concern (USDI 2002).